

Canada's place in the sun



nt astronomers from Cornell University.

curious as ever, seemingly quite at home during the academic discussions with his scientist guests.

The astronomers assembled at Pugwash brought no complex eclipse-viewing equipment with them. This aspect of the event was being looked after by their colleagues gathered at such places as East Quody and other points along the band in which the eclipse was total.

In fact the entire collection of "instruments" used at Pugwash by some of the world's top astronomical scientists consisted of a few dark glass filters to be held to the eyes and a pair of ordinary binoculars which, when

pointed at the sun in a reverse position, projected an image of the eclipse on a piece of white cardboard. This arrangement seemed to satisfy even Dr. Drake, who normally is in charge of one of the biggest radio telescopes on earth.

You gathered that, to these scientists, eclipse-viewing was a fairly basic exercise after years of seeking out and attempting to study planets many light years away.

Heady conversation

Having heard of the world-famed Pugwash "thinkers' conferences" for years, I found it fascinating to attend one, even though the assembled scientists were often carrying on conversations which were as far above my head as Jupiter or Mars.

Yet, in some of their remarks, they were surprisingly down to earth. Said Dr. Sagan, for instance, when asked why he expected to find civilizations of higher intelligence than that of earthmen, if ever he managed to contact one of them:

"It's almost a certainty they will be more intelligent than we, if they have developed electronic communications. After all, we must make up about the stupidest civilization in our galaxy. You must remember that it wasn't until only about a half a century ago—a mere tick of the astronomical clock—that we developed electronic forms of communication."

Primitive system

You gathered that he thought our civilization had not progressed in communications much beyond the jungle drum stage, compared to those which may have developed radio transmission systems thousands of years ago.

One of the slight problems now facing the scientists is that they do not yet expect to contact another world with electronic communications closer to earth than about 1,000 light years—meaning the distance light can travel at 200,000 miles a second in that span of time. This could be rather awkward, considering that radio waves travel at

roughly the same speed as light.

As Dr. Sagan explained it: "If, for instance, we were to say into a microphone 'Hello, how are you?' it would take our words 1,000 years to reach the person on the receiving end. It would then be another 1,000 years before we could hear him reply: 'I'm fine. How are you?'"

However, it is unlikely that our first communications with civilizations on distant planets will be carried on in words; because of the obvious language difficulties which might be encountered. At present, messages being beamed into outer space from Dr. Drake's huge transmitter complex in Puerto Rico consist mainly of coded diagrams of various kinds. They are pictures, which need no translations such as those required in transmissions of language.

There is a possibility, in fact, that some of the first messages exchanged between earth and distant planets will take a form not unlike that of a Mickey Mouse cartoon, with animated drawings expressing what we are trying to communicate.

An ingenious plaque attached to Pioneer 10, which left earth in March on the longest space shot ever attempted by man, bears no words or numbers but merely a picture of an earthman and an earthwoman, a sketch of a space capsule and a diagram indicating from which planet the Pioneer was launched. It is believed that this plaque, if it is intercepted far out in space, will make it perfectly clear what kind of beings sent it on its journey and where they live.

Need better pictures

Scientists at Pugwash stress that even in the case of those planets at which we have been allowed a comparatively close look, it is too early to definitely dismiss the possibility of their containing some higher form of life. Much better resolution is required in the pictures of them before we can be sure.

(SEE OVER)

Even the earth, photographed at certain distances during recent manned space shots, might appear to be uninhabited at first glance from a range equivalent to that of our present glimpses of some of the planets in our galaxy.

Mr. Eaton began his first Pugwash conferences in 1954 in the beautiful old home of his great uncle Levi Eaton, who had been a prosperous shipbuilder in the days of sail when the Pugwash yards were always busy. With the advent of steel hulls on the Atlantic, the activities in the yards where wooden ships were made dwindled.

Sailed away

So old Levi, a man of great enterprise and determination, decided one day in 1850 to load about half the population of Pugwash aboard three wooden ships and move the families to New Zealand and Australia, where they could still carry on with sail in the China trade. Levi even took along the Pugwash pastor on the long voyage to the other side of the world.

Today his house serves as a museum when it is not being occupied during a Pugwash conference. From a staff on the lawn fly the Canadian flag, the Union Jack and the beautiful flag of Nova Scotia. Flapping from two lines running down from near the top of the staff are the flags of the 53 nations whose representatives have met at Pugwash for thinkers' conferences over the past 18 years.

"One of the most historic conferences I have witnessed here was held right on the corner of that veranda," recalls Mr. Eaton with a chuckle, as he points to the platform overlooking the sea in front of the small former lobster-packing factory which now serves as a dining room for the gatherings.

"Sir Julian Huxley was holding forth to some of his colleagues on the love-life of the lobster. He was explaining in great scientific detail how lobster reproduced themselves when he was interrupted by old Josh Allen, a Pugwash lobsterman who had spent his life at the trade. He never got past the fourth grade in school, but he was smart enough to make himself about a half a million dollars from his lobster factory.

"Well, sir, by the time he got

through straightening out Sir Julian about how lobsters actually did go about their courting, the eminent scientist's ears had been well pinned back!"

Considering the great minds which have been assembled here from time to time, there is a surprising air of informality about the place. No matter what his guests are thinking about, Mr. Eaton wants them to do it comfortably. Always standing ready in the background is Mr. Eaton's superb major domo, Raymond Bourque, ready to satisfy the guest's every whim and fancy in food or drink.

There may be cases on record of major domos who became members of the Legislature, but Mr. Bourque is the first one I have ever encountered who deserted politics to become a major domo. In 1952 he was the Conservative MPP for Yarmouth in the Nova Scotia Legislature.

Mr. Eaton loves to inform his learned guests that in the Micmac Indian language Pugwash means deep water, which is what some of the thinkers are supposed to get into when discussing problems of the world on this picturesque old estate.

In recent years Pugwash became so

devoid of industry, except for lobster-fishing, that there was hardly a place where its young men could get jobs. This problem has now become somewhat alleviated by the establishment of a salt plant that employs about 200 in its three work shifts. The village's population is about 800.

Remembered birthplace

No matter where Cyrus Eaton roamed or how high he rose in the fields of international finance and industry, the heart of the U.S. tycoon always seemed to remain in his humble birthplace. Once, when he was talking to a U.S. friend about his favorite hamlet, he was asked where on earth Pugwash was.

"Why, good heavens man," exclaimed Mr. Eaton, feigning surprise and indignation at such a stupid question, "Pugwash is right there between Shinimicas and Tatamagouche!"

However, since 1954, Pugwash has gained world renown for such a small place, certainly to the point where Shinimicas and Tatamagouche might now at least be said to lie to the west and east of Pugwash.



Thinkers' Lodge in Pugwash, Cyrus Eaton's gathering place for intellectuals.